

What is claimed is:

1. A method of making a multi-well test plate including a transparent panel and an upper frame portion with a plurality of walls defining adjacent wells arranged in a grid pattern, the method comprising:

- 5 placing the transparent panel and the upper frame portion in a contacting relationship with a layer of a light-curable adhesive disposed therebetween in a configuration corresponding to the grid pattern; and
- curing the light-curable adhesive with light to adhesively bond the upper frame portion and the transparent panel.

2. The method of claim 1 further comprising:
applying the layer of the light-curable adhesive in the configuration to the transparent panel.
3. The method of claim 2 wherein applying the layer of the light-curable adhesive further comprises :
applying the layer of the light-curable adhesive by a silk-screening process to the transparent panel.
4. The method of claim 2 wherein applying the layer of the light-curable adhesive further comprises:
applying the layer of the light-curable adhesive such that the wells are free of the light curable adhesive.
5. The method of claim 4 wherein the configuration includes a plurality of intersecting adhesive lines, and applying the layer of the light-curable adhesive further comprises:
limiting a width of each of the intersecting adhesive lines such that, when the upper frame portion is contacted with the transparent panel, adhesive from the intersecting adhesive lines does not enter the wells.
6. The method of claim 2 further comprising:
aligning the plurality of walls with the configuration of adhesive before the transparent panel and the upper frame portion are placed in a contacting relationship.

7. The method of claim 1 wherein the transparent panel is formed from glass and the upper frame portion is formed from a transparent polymer.

8. The method of claim 1 wherein the transparent panel and the upper frame portion are each formed from a transparent polymer.

9. The method of claim 1 wherein curing the light-curable adhesive further comprises:

exposing the light-curable adhesive to ultraviolet light.

10. The method of claim 9 wherein exposing the light-curable adhesive further comprises:

directing ultraviolet light through the transparent panel.

11. The method of claim 9 wherein curing the light-curable adhesive further comprises:

exposing the light-curable adhesive to visible light.

12. The method of claim 1 wherein exposing the light-curable adhesive further comprises:

directing visible light and ultraviolet light through the transparent panel to illuminate the light-curable adhesive.

13. The method of claim 1 wherein curing the light-curable adhesive further comprises:
exposing the light-curable adhesive to visible light.
14. The method of claim 13 wherein curing the light-curable adhesive further comprises:
directing visible light through the transparent panel to illuminate the light-curable adhesive.
15. The method of claim 1 further comprising:
sterilizing the adhesively-bonded upper frame portion and transparent panel, after curing, utilizing at least one of ethylene dioxide and gamma radiation.
16. The method of claim 1 further comprising:
molding lower surfaces of the upper frame portion wetted by the layer of the light-curable adhesive with a mirror finish.
17. The method of claim 1 further comprising:
modifying lower surfaces of the upper frame portion with a finish that increases surface area.

18. A method of making a multi-well test plate including a transparent panel and an upper frame portion with a plurality of walls defining adjacent wells and having upper and lower ends, the method comprising:

5 mounting the transparent panel with an upper surface disposed adjacent a screen having apertures in a configuration corresponding to the lower ends of the walls;

spreading a generally even layer of light curable adhesive on a surface of the screen opposite to the transparent panel;

10 wiping the adhesive from the screen to urge portions thereof through the apertures and onto the upper surface of the transparent panel in the configuration;

aligning the configuration of adhesive with the configuration of the lower ends of the walls;

15 mounting the transparent panel to the upper frame portion while maintaining the alignment of the adhesive and the walls; and

curing the adhesive by directing light through a bottom side of the transparent panel.

19. The method of claim 18 wherein curing the light-curable adhesive further comprises:

directing ultraviolet light through the transparent panel to illuminate the light-curable adhesive.

20. The method of claim 19 wherein curing the light-curable adhesive further comprises:

directing visible light through the transparent panel to illuminate the light-curable adhesive.